

**ATTACHMENT D**  
**SUMMARY OF GROUND WATER MONITORING DATA**

**(2004)**

**GLOBAL PETROLEUM CORPORATION**

**NPDES PERMIT NO. MA0003425**

Global Petroleum Corporation  
 140 Lee Burbank Highway, Revere, Massachusetts  
 NPDES Exclusion 98-086  
 Groundwater Treatment System  
 Influent/Effluent Testing Results

Date			10/14/04		11/22/04		12/20/04	
Parameter	NPDES Limit		Influent	Effluent	Influent	Effluent	Influent	Effluent
TPH	5 ppm		0.88 mg/l	ND mg/l	1.6 mg/l	ND mg/l	2.8 mg/l	ND mg/l
Methyl Butyl Tert Ether	70 ppb		172,000 ug/l	ND ug/l	193,000 ug/l	2.0 ug/l	200,000 ug/l	72 ug/l
Benzene	5 ppb		2,770 ug/l	ND ug/l	2,180 ug/l	ND ug/l	2,800 ug/l	ND ug/l
Toluene	*		3,380 ug/l	ND ug/l	3,040 ug/l	ND ug/l	4,640 ug/l	ND ug/l
Ethylbenzene	*		343 ug/l	ND ug/l	551 ug/l	ND ug/l	568 ug/l	ND ug/l
Xylenes	*		3,840 ug/l	ND ug/l	3,390 ug/l	ND ug/l	5,120 ug/l	ND ug/l
Total BTEX	100 ppb		10,333 ug/l	ND ug/l	9,161 ug/l	ND ug/l	13,128 ug/l	ND ug/l

ND - Not detected



11/04/04

## Technical Report for

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Camp Dresser & McKee

Global Petroleum, Revere MA

Accutest Job Number: M42578

Sampling Dates: 10/14/04 - 10/15/04

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Report to:

Camp, Dresser & McKee

WinklerJH@cdm.com

ATTN: Jim Winkler

Total number of pages in report: 16



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
Reza Fand  
Lab Director

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579)  
NY (23346) NJ (MA926) NAVY USACE

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## Sample Summary

Camp Dresser &amp; McKee

Job No: M42578

Global Petroleum, Revere MA

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M42578-1	10/15/04	10:50 TAN	10/20/04	AQ	Influent	INF-101504
M42578-2	10/15/04	11:10 TAN	10/20/04	AQ	Ground Water	CIN-101504
M42578-3	10/15/04	12:05 TAN	10/20/04	AQ	Ground Water	MID-1-101504
M42578-4	10/15/04	12:15 TAN	10/20/04	AQ	Ground Water	MID-2-101504
M42578-5	10/15/04	12:25 TAN	10/20/04	AQ	Effluent	EFF-101504
M42578-6	10/14/04	08:30 TAN	10/20/04	AQ	Trip Blank Water	TB

## Report of Analysis

Client Sample ID:	INF-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-1	Date Received:	10/20/04
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	EPA 602		
Project:	Global Petroleum, Revere MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB17588.D	1	10/23/04	AF	n/a	n/a	GAB888
Run #2	AB17602.D	200	10/25/04	AF	n/a	n/a	GAB889
Run #3	AB17662.D	1000	10/27/04	AF	n/a	n/a	GAB892

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml
Run #3	5.0 ml

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2770 <sup>a</sup>	200	ug/l	
108-88-3	Toluene	3380 <sup>a</sup>	200	ug/l	
100-41-4	Ethylbenzene	343	1.0	ug/l	
1330-20-7	Xylenes (total)	3840 <sup>a</sup>	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	172000 <sup>b</sup>	1000	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
	2,3,4-Trifluorotoluene	69%	74%	70%	61-124%

(a) Result is from Run# 2

(b) Result is from Run# 3

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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2.1  
2

Client Sample ID:	INF-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-1	Date Received:	10/20/04
Matrix:	AQ - Influent	Percent Solids:	n/a
Project:	Global Petroleum, Revere MA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	0.88	0.62	mg/l	1	10/20/04	BF	EPA 418.1

RL = Reporting Limit

## Report of Analysis

Client Sample ID: CIN-101504  
 Lab Sample ID: M42578-2  
 Matrix: AQ - Ground Water  
 Method: EPA 602  
 Project: Global Petroleum, Revere MA

Date Sampled: 10/15/04  
 Date Received: 10/20/04  
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB17589.D	1	10/23/04	AF	n/a	n/a	GAB888
Run #2	AB17603.D	5	10/25/04	AF	n/a	n/a	GAB889

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	2.3	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1160 <sup>a</sup>	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	68%	72%	61-124%

(a) Result is from Run# 2

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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2.2  
2

Client Sample ID:	CIN-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-2	Date Received:	10/20/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Global Petroleum, Revere MA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	< 0.62	0.62	mg/l	1	10/20/04	BF	EPA 418.1

RL = Reporting Limit

## Report of Analysis

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2.3  
2

Client Sample ID:	MID-1-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-3	Date Received:	10/20/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 602		
Project:	Global Petroleum, Revere MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB17590.D	1	10/23/04	AF	n/a	n/a	GAB888
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.9	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	66%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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2.3  
2

Client Sample ID:	MID-1-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-3	Date Received:	10/20/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Global Petroleum, Revere MA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	< 0.61	0.61	mg/l	1	10/20/04	BF	EPA 418.1

RL = Reporting Limit

## Report of Analysis

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2.4  
2

Client Sample ID:	MID-2-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-4	Date Received:	10/20/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 602		
Project:	Global Petroleum, Revere MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB17591.D	1	10/23/04	AF	n/a	n/a	GAB888
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	65%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	MID-2-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-4	Date Received:	10/20/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Global Petroleum, Revere MA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	< 0.63	0.63	mg/l	1	10/20/04	BF	EPA 418.1

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	EFF-101504	Date Sampled:	10/15/04
Lab Sample ID:	M42578-5	Date Received:	10/20/04
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 602		
Project:	Global Petroleum, Revere MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB17592.D	1	10/23/04	AF	n/a	n/a	GAB888
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	65%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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2.5

2

Client Sample ID: EFF-101504

Lab Sample ID: M42578-5

Matrix: AQ - Effluent

Date Sampled: 10/15/04

Date Received: 10/20/04

Percent Solids: n/a

Project: Global Petroleum, Revere MA

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	< 0.63	0.63	mg/l	1	10/20/04	BF	EPA 418.1

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TB	Date Sampled:	10/14/04
Lab Sample ID:	M42578-6	Date Received:	10/20/04
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 602		
Project:	Global Petroleum, Revere MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB17593.D	1	10/23/04	AF	n/a	n/a	GAB888
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	64%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## **Misc. Forms**

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## **Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: **M42578**

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> <u>CDM</u> <b>ADDRESS</b> <u>50 HAMPSHIRE ST</u> <u>CAMBRIDGE MA</u> <b>CITY, STATE, ZIP</b> <u>JIM WINKLER</u> <b>SEND REPORT TO:</b> <u>617-452-6263</u> <b>PHONE #</b>			<b>PROJECT NAME</b> <u>GLOBAL PETROLEUM</u> <b>LOCATION</b> <u>140 LEE BURBANK HWY</u> <u>RELIERE, MA</u> <b>PROJECT NO.</b> <u>20394-35913-01.MIP</u> <b>FAX #</b>			<b>ANALYTICAL INFORMATION</b> <div style="display: flex; justify-content: space-between;"> <div> <b>DATE</b> 10/15/04  <b>TIME</b> 10:50  <b>SAMPLED BY:</b> TAN GW </div> <div> <b>PRESERVATION</b>  <input checked="" type="checkbox"/> NO  <input type="checkbox"/> NON  <input type="checkbox"/> H2O2  <input type="checkbox"/> H2SO4  <input type="checkbox"/> NONE </div> </div>										<b>MATRIX CODES</b> DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	DO	BOTTLE	NO	NON	H2O2	H2SO4	NONE	LAB USE ONLY				
M42578-1	INF-101504	10-15-4	10:50	TAN GW	GW			X					X				
-2	INF-101504	7	11:10					X					X				
-3	MID-1-101504	7	12:15					X					X				
-4	MID-2-101504	7	12:15					X					X				
-5	EFF-101504	10-15-4	12:25	TAN GW	GW			X					X				
-6	TRB	11-14-4	8:30	RJ GW	GW			X					X				

**DATA TURNAROUND INFORMATION**  
☒ 14 DAYS STANDARD  
☐ 7 DAYS RUSH  
☐ 48 HOUR EMERGENCY  
☐ OTHER  
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

**DATA DELIVERABLE INFORMATION**  
☐ STANDARD  
☐ COMMERCIAL "B"  
☐ DISK DELIVERABLE  
☐ STATE FORMS  
☐ OTHER (SPECIFY)

**COMMENTS/REMARKS**  
MCA PRESUMPTIVE CERTAINTY  
Loc. 4C, 1B7

**SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY**

<b>RELINQUISHED BY:</b> 1. <u>[Signature]</u> <b>DATE TIME:</b> 10-15-4 10:50	<b>RECEIVED BY:</b> 1. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04 11:20	<b>RELINQUISHED BY:</b> 2. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04 15:40	<b>RECEIVED BY:</b> 2. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04
<b>RELINQUISHED BY:</b> 3. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04	<b>RECEIVED BY:</b> 3. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04	<b>RELINQUISHED BY:</b> 4. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04	<b>RECEIVED BY:</b> 4. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04
<b>RELINQUISHED BY:</b> 5. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04	<b>RECEIVED BY:</b> 5. <u>[Signature]</u> <b>DATE TIME:</b> 10/19/04	<b>SEAL #</b> _____ <b>PRESERVE WHERE APPLICABLE</b> <input type="checkbox"/> <b>ON ICE</b> <input type="checkbox"/> <b>TEMPERATURE</b> <u>2.7 C</u>	

3.1  
3

M42578: Chain of Custody  
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